

STANDARDIZING LACTATION EDUCATION FOR HOME
VISITING STAFF TO IMPROVE BREASTFEEDING
DURATION RATES

by

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ABSTRACT

Breastfeeding has been shown to improve short-and long-term health outcomes to both mother and child. Health departments are in a unique role to provide community level support in breastfeeding. Gallatin-City County Health Department provides breastfeeding support through multiple programs within the community, including maternal child health home visiting. Based on a recent survey, results showed that half of home visitors did not feel confident in educating prenatal clients on breastfeeding. In addition to this, home visitors did not feel they were providing the same education on breastfeeding. Stemming from this, the need for a standardized lactation curriculum was researched. Ready, Set, Baby is an evidence-based standardized curriculum that increases a mother's knowledge of breastfeeding benefits and practices. This scholarly project examines home visiting staff education on Ready, Set, Baby curriculum, improved breastfeeding education with home visiting families, and improved breastfeeding duration rates.

CHAPTER 1

INTRODUCTION

Statement of Need

Newborn's first food lays the foundation for optimal growth, health, and development (Parry, Moss, & Sullivan, 2017). Further, evidence supports the foundational role of breastfeeding to improve short- and long-term health outcomes for both mother and child (Hromi-Fiedler, Buccini, Gubert, Doucit, & Perez-Escamilla, 2018) with exclusively breastfeeding for the first six months of life recommended for maximum health outcomes (World Health Organization, 2018). Although 82.5% of United States mothers initiate breastfeeding, by 6 months postpartum, just over one half continuing to breastfeed (Parry, Hopper, Schildcamp, & Labbok, 2018). Inadequate support of mother's and healthcare professionals has been attributed to this limited success.

Health Departments are in a unique position to lead efforts in coordinating community-level breastfeeding initiatives. As such, Health Department staff should be knowledgeable about the health risks to mother and baby regarding the decision to not breastfeed, the economic benefits of breastfeeding to the family and society, and how to support the mother-baby dyad to successfully breastfeed for the first six months of life (Reilly & Carr, 2016). The Montana Health Departments offer home visiting services targeted at pregnant women and caregivers with children ages 0-5 through the Maternal Infant and Early Childhood Home Visiting Program (MIECHV). A primary goal of the home visiting program is to improve maternal and child health outcomes through targeted health education (Shevlin & Gaub- Bruno, 2019).

Gallatin-City County Health Department offers breastfeeding support through multiple programs within the community, including outreach and group classes, peer-to-peer breastfeeding support counselor, Women, Infant, and Children (WIC) services, and a lactation education and breast pump rental program. The goal of these programs is to improve breastfeeding initiation and duration, through support and education. Within the Health Department's home visiting team, home visitors go into the home and provide lactation education for families (Healthy Gallatin, 2020). Some home visitors are trained certified lactation counselors (CLC's) and some are not. All home visitors have variance in knowledge level on breastfeeding practices and all choose different curriculum on breastfeeding education in home visits. In addition to this, each home visitor may bring to the visit their own unique personal experiences on breastfeeding. Statement of Problem

Based on a micro-analysis completed at Gallatin City-County Health Department in October of 2019, results showed that half of home visitors did not feel confident in educating prenatal clients on breastfeeding. In addition to this, half of home visitors felt that they were not providing the same education on breastfeeding to prenatal clients in terms of content (microanalysis, 2019). Home visiting staff need a standardized curriculum that will provide prenatal mothers with lactation education, therefore improving breastfeeding knowledge and duration.

Background and Need

Ready, Set, Baby Curriculum was developed over the course of 2012-2015 by a collaborative effort among International Board-Certified Lactation Consultants (IBCLC's) at the Carolina Global Institute and North Carolina's Hospital, and researchers at Chapel Hill (Parry,

Hopper, Schildcamp, & Labbok, 2018); Ready, Set, Baby, nd) . Ready, Set, Baby materials consist of a 28-page color client booklet and an educator flipchart. Materials are in both English and Spanish covering 14 content topics. (Parry, Hopper, Schildcamp, & Labbok, 2018). Each content topic starts with an engaging question which allows the home visitor to tailor the discussion to the client. The materials are culturally diverse and are at a 6th grade reading level (Parry, Hopper, Schildcamp, & Labbok, 2018). Ready, Set, Baby curriculum is a non-commercial no cost evidenced based curriculum designed to educate women on breastfeeding in any trimester of pregnancy (Parry, Moss, & Sullivan, 2017). The curriculum can be used in a clinic setting, class setting, and the home setting. Effective prenatal education geared at satisfying Step 3 requires collaboration among hospitals, prenatal, clinics, health departments, and WIC agencies (Parry, Moss, & Sullivan, 2017).

Purpose of Study

The purpose of this study is to implement a standardized lactation curriculum for home visiting staff to implement with home visiting families, in order to determine if breastfeeding education improves breastfeeding duration.

Significance to the Field

Ready, Set, Baby will allow home visitors to present an evidence-based standardized curriculum, increasing the mother's knowledge of breastfeeding benefits and practices. According to Parry, Hopper, Schildcamp, & Labbok, (2018), "Less than half of American mothers meet their breastfeeding goals, and mothers cite lack of adequate preparation as the main reason for supplementing during postpartum hospitalization" (Parry, Hopper, Schildcamp,

& Labbok, 2018). Home visitors working alongside the mother have the perfect position for antenatal breastfeeding education, therefore improving overall health related outcomes of the child.

Definitions

MIECHV: Maternal, Infant, and Early Childhood Home Visiting Program is a program that gives pregnant women and families, particularly those considered at-risk, necessary resources and skills to raise children who are physically, socially, and emotionally healthy and ready to learn. The skills are taught, and resources are supported by utilizing the Parents as Teachers Curriculum which focuses on three domains: parent-child interaction, child development, and family wellbeing (Pat, 2019). Though MIECHV's grant funding families can receive books, gas and grocery cards, and children's developmental toys.

Antenatal: Before birth, the period before something is born. The prenatal period.

Home Visiting: Home visiting is a service provided by qualified individuals within the home to parents, prenatal, and or children ages 0-5.

Accepted Breastfeeding Goals: World Health Organization (WHO) and UNICEF recommend that children initiate breastfeeding within the first hour of birth and be exclusively breastfed for the first 6 months of life.

Limitations: A limitation to this study is that it pertains to the Gallatin City-County Health Departments Home visiting team and families in Bozeman, Montana. This study may not be extended outside of the health department to the broader public, such as a hospital setting.

Ethical Considerations

Ethical considerations include minimizing potential risks to the participants (home visiting families). Part of the staff training will be focused on how to lead this education in an unbiased, open-minded, supportive way for the participants. Although this curriculum focuses on breastfeeding, it does not take away the importance that not all mothers can or choose to breastfeed. The training will discuss ways to provide the best support to the family that is client led.

Literature Review

Prenatal mothers served through the Gallatin City-County Health Department's home visiting program are seen for lactation education services. Although families receive education, home visiting staff all choose different variations of curriculum when visiting and performing services. The need for a standardized curriculum has been identified to provide prenatal mothers with lactation education, therefore improving breastfeeding knowledge and duration.

CHAPTER 2

LITERATURE REVIEW

This literature review explores the benefits of breastfeeding to mother, baby, the health outcomes that are provided to both, and to determine the value of implementing an educational curriculum on breastfeeding as a means for augmenting the period of lactation. A literature search was conducted for peer reviewed research and meta-analysis reports published within the last five years from PubMed, Cochrane Library, and CINAHL to identify studies examining breastfeeding, breastfeeding education, nursing continuing education, baby friendly hospital initiative, and the Ready, Set, Baby Curriculum. The key terms and subject headings were included in various combinations. See Table 1 for key terms. The literature was evaluated for relevance to the topic 16 peer reviewed were considered around three themes which a) the benefits of breastfeeding for mothers and baby, b) the efficacy or lack thereof regarding breastfeed educational curriculum such as Ready, Set, Baby and the Baby-Friendly Hospital Initiative, and c) the continuing education for both nurses, patients and or clients.

Table 1. Baby Friendly Hospital Initiative's Ten Steps to Successful Breastfeeding

Critical Management Procedures
1a. Comply fully with the International Code of Marketing of Breast-milk Substitutes and relevant World Health Assembly resolutions.
1b. Have a written infant feeding policy that is routinely communicated to staff and parents.
1c. Establish ongoing monitoring and data-management systems.
2. Ensure that staff have sufficient knowledge, competence and skills to support breastfeeding.
Key Clinical Practices
3. Discuss the importance and management of breastfeeding with pregnant women and their families.
4. Facilitate immediate and uninterrupted skin-to-skin contact and support mothers to initiate breastfeeding as soon as possible after birth.
5. Support mothers to initiate and maintain breastfeeding and manage common difficulties.
6. Do not provide breastfed newborns any food or fluids other than breast milk, unless medically indicated.
7. Enable mothers and their infants to remain together and to practice rooming-in 24 hours a day.
8. Support mothers to recognize and respond to their infants' cues for feeding.
9. Counsel mothers on the use and risks of feeding bottles, teats and pacifiers.
10. Coordinate discharge so that parents and their infants have timely access to ongoing support and care.

(WHO, 2018)

Benefits of Breastfeeding for both Mother and Baby

Throughout the literature the theme of breastfeeding as a benefit for both mother and baby is articulated. The authors (Parry, Moss, Sullivan, Chowdhury, & Sanker) in their

(systematic review and meta-analysis) noted that breast milk provides a natural first food for newborns. Exclusive breastfeeding provides immunological protection for the immune system, energy for the infant, and nutrients for optimal growth and development. Breast milk provides infant nutrition as well as protective factors for the mother.

A level one systematic review and meta-analysis was performed in 2015 to evaluate the effect of breastfeeding on long-term breast and ovarian carcinoma by Chowdhury and Sanker, (2015). In this systematic review of 161 articles the authors were able to conclude that mothers who breastfed had an 22% reduction of breast carcinoma risk in comparison to mothers who have never breastfed. Ovarian carcinoma risk for breastfeeding mothers was reduced by 30% overall in comparison to mothers who have never breastfed and the highest benefit for risk reduction was found among mothers who breastfed for more than a 12 months duration decreasing breast carcinoma overall by 26% (Chowdhury & Sanker, 2015).

Health benefits accomplished through breastfeeding reach further than just the mother. The baby benefits from breastfeeding. In a systematic review and meta-analysis of human milk feeding and morbidity conducted by Miller et. al in 2018, examined human milk as compared to exclusive formula feeding when given to a preterm very low birth weight infant. The study looked at forty-four articles and which included infants less than 28 weeks gestation with a mean birth weight of less than 1500 grams. Exclusive human milk feeding was compared to exclusive preterm formula feeding. The preterm infants demonstrated a four percent decline in necrotizing enterocolitis. The study suggested a possible reduction in late onset sepsis preterm infants (Miller et. al., 2018).

A meta-analysis was conducted by Horta, Loret de Mola, and Victora in 2015, to determine the correlation of long term consequences of breastfeeding in relate to rates of obesity, hypertension, type II diabetes, and cholesterol. One hundred and fifteen articles were analyzed. Horta, Loret deMola and Victoria, (2015) concluded that breastfed subjects were 13% less likely to be classified as obese or overweight. Eleven of the studies evaluated the correlation of type II diabetes and breastfeeding and the authors observed that breastfed infants had a lower odds of type II diabetes No associations were found relating to cholesterol levels or hypertension for the breastfed infant in this meta-analysis (Horta, Loret de Mola, & Victora, 2015).

Benefits of Breastfeeding Curriculum

McFadden, et. al (2017) in a level one Cochrane review which followed 74,656 women in over 29 countries observed that despite the known benefits of breastfeeding, women may choose to stop breastfeeding within the first few weeks of the postnatal period. The reasons and rationale for discontinuing breastfeeding were multifactorial. Breastfeeding support for the mother proved a positive impact on the choice to continue breastfeeding when delivered either by lay people and professionals (McFadden, et. al., 2017).

A qualitative review titled Empowerment in Breastfeeding as Viewed by Women, by Zeinbabm Kohan, and Keshvari (2017) conducted thirty-four semi-structured, deep interviews with 18 mothers, four key family members, and 12 other personnel involved in breastfeeding counseling services. The study explored Iranian women's perceptions of health professional's involvement in the education and support of the mothers during the breastfeeding process. The interview responses identified that the perception of support was a main factor in the feeling of empowerment for the continuation of breastfeeding.

Success of breastfeeding was closely related to a mother's feelings of satisfaction and an influencing factor in breastfeeding satisfaction was closely linked to education on the topic (Awaliyah, Racjmawati, & Rahmah, 2019; Zeinab, Kohan, & Keshvari, 2017). Self-confidence was identified as a psychological factor and a predictor of breastfeeding initiation and that by educating and empower the mother there was improvement in breastfeeding (Parry, Hopper, Schildcamp, & Labbok, 2018; Zeinab, Kohan, & Keshvari, 2017).

Ready, Set, Baby

To better protect, support, and promote breastfeeding practices the Baby-Friendly Hospital Initiative (BFHI) was launched in 1991 by the World Health Organization and United Nations International Children's Emergency Fund (UNICEF) (WHO & UNICEF, 2009). The BFHI achieves this goal through the provision of educational and support materials to maternity facilities adopting and implementing the Ten Steps (Aretey & Dykes, 2018). Evidence supports a link between adherence to the Ten Steps to Successful Breastfeeding program and improved breastfeeding health outcomes such as improved rates of early initiation, exclusive breastfeeding, and total duration of breastfeeding (Aretey & Dykes, 2018).

In a 2016 an integrative review of the Baby-Friendly Hospital Initiative employed a social ecological model as a framework to examine how baby-friendly practices influence overall breastfeeding (Munn, Newman, Mueller, Phillips, & Taylor, 2016). The literature review was performed from 2010-2015 including mothers with racial ethnic disparities, mothers with lower educational status, and lower income. Results showed that the BFHI improved breastfeeding initiation and exclusivity (Munn, Newman, Mueller, Phillips, & Taylor, 2016). Results may be

applicable to high risk home visiting families served through the Maternal, Infant, and Early Childhood Home Visiting Program.

In 2017, the United States Surgeon General made a call to action to support breastfeeding through supporting implementation of the Ten Steps supporting more childbearing families to realize infant feeding goals (Parry, Moss, & Sullivan, 2017). While complete outline of Steps one through ten are presented in the Literature Review (Table 1); step three requires that all expectant mothers are to be educated on the benefits and management of breastfeeding. The Ready, Set, Baby curriculum satisfies the requirements for Step Three of the Ten Steps (Parry, Moss, & Sullivan, 2017).

According to an evaluation of Ready, Set, Baby; Parry, Moss, and Sullivan discuss that there is no standardized curriculum for educating prenatal women as directed in Step Three of the Ten Steps. The authors Parry, Hopper, Schildcamp and Labbok (2018) pointed out that many facilities develop their own curriculum or do not have a curriculum to achieve this task. The focus of the study was designed to assess the effects of the prenatal curriculum titled Ready, Set, Baby by sending out pre and post education questionnaires to 416 women. The pre-class questionnaire assessed the strength of women's feeding skills using an infant feeding index (IFI) (See Table 2). Results of the women attending the Ready, Set, Baby classes demonstrated an increase in the infant feeding score from a 14.0 pre-class questionnaire to a 15.5 post-class questionnaire ($P < 0.001$). Women improved scores in the area of understanding infant feeding cues, the importance of skin to skin contact, and the importance of remaining with the infant at all times (Parry, Moss, & Sullivan, 2017; Parry, Hopper, Schildcamp, & Labbok, 2018).

Table 2. Search Strategy for Breastfeeding

-
1. Breastfeeding OR Breastfeeding Benefits
 2. Breastfeeding education OR Breastfeeding nurse education
 3. Ready, Set, Baby Curriculum
 4. Baby Friendly Hospital Initiative, Step 3
 5. Continuing for nurses OR nurse continuing education
 6. Breastfeeding duration OR breastfeeding duration and education
-

Parry, Hopper, Schildcamp, and Labbok (2018) concluded that prenatal breastfeeding education is an effective strategy for improving breastfeeding intention (2018). In addition to this study each pilot site was interviewed via a phone call in 2015 by Kathy Parry, the developer of Ready, Set, Baby curriculum. Settings ranged from rural communities to an urban teaching hospital. Educators noted the value of the curriculum specifically for images, layout, and graphics (Parry, Moss, & Sullivan, 2017). With staff from all types of settings showing satisfaction in the curriculum, and mothers improving initiation rates of breastfeeding as a result of the curriculum; promising signs show the importance of continuing educating for nursing staff on breastfeeding in order to deliver this education to prenatal mothers to maximize maternal preparedness (Parry, Hopper, Schildcamp, & Labbok, 2018).

In order to improve maternal and infant health outcomes and to enable women to realize their infant feeding goals, Parry, Hopper, Schildcamp, and Labbok, (2018) emphasized that multifaceted strategies to improve infant breastfeeding must begin in the prenatal period. Breastfeeding knowledge of the mother was one of the important factors associated in this study

with the choice to continue exclusive breastfeeding of the infant (Parry, Hopper, Shildcamp, and Labbok, 2018)

In a mixed methods study performed by Zielinska, Sobczak, & Hamulka (2017), 446 mothers aged 18-42 of infants under seven months old were assessed for breastfeeding knowledge based from socio-demographic characteristics including education, occupational situation, and place of residence. According to the results of the study common reasons for introducing formula were derived from lactation problems. An important finding of this study was that breastfeeding educational programs should be focused mothers from high risk groups, e.g. lower educational status and mothers from rural areas (Zielinska, Sobczak, & Hamulka, 2017).

Chaghart, Saffari, Ebadi, and Ameryoun, in a study published in 2017 determined that nurses play a vital role in improving health standards of the mother; therefore it is recommended that nursing staff are kept up to date on the current and practical knowledge breastfeeding standards and techniques. The authors emphasized the importance of professional development which requires active participation for effective learning. In a qualitative study titled, *Empowering Education: A New Model for In-Service Training of Nursing Staff*, greater success was seen when nurses were able to participate in the design and active implementation of the training program. The authors recommended that the education provided to prenatal training staff must be practical and proportionate to the nurses' role and population, they serve (Chaghart, Saffari, Ebadi, & Ameryoun, 2017).

According to a level one meta-analysis titled *Factors Associated with Breastfeeding Initiation and Continuation*, Levin-Sparenburg, Turini, and Saavedra evaluated high impact

factors association with breastfeeding initiation and continuation. In 39% of the article the issue of maternal smoking during pregnancy verses not smoking during pregnancy was addressed. Non-smoking mothers had a better score of breastfeed initiation and continuation than those of mothers who were smokers. Lower levels of maternal education were associated with lower levels of breastfeeding initiation (Cohen et. al., 2018; Columbo et. al., 2018). A crucial finding in the study done by Cohen et.al, (2018) demonstrated that mothers who received some type of breastfeeding education or support has a positive correlation with increased initiation and duration of breastfeeding (Cohen et. al., 2018). Education is vital for success and nurses play an important role in providing the education.

Shahhosseini & Hamzehgardeshi (2015) concluded, in a mixed method sequential study on continuing education for the medical personnel that offered breastfeeding instruction, that education of the medical personnel was a key element in elevating the health status of the community. The authors looked at the facilitators and barriers that affected nursing education by extracting quantitative data from 361 nurse's receiving continuing education courses. The highest mean scores for facilitators and barriers include time constrains, lack of coworkers' support, work commitments, and the cost of courses. A highly ranked facilitator identified by the nurses was the importance of updating knowledge and improving clinical skills (Shahhosseini & Hamzehgardeshi, 2015).

In a study titled, Prenatal Education: Program Content and Preferred Delivery Method from the Perspective of the Expectant Parents, Kovala, Cramp, and Xia, (2016) noted that expectant parents prefer to receive educational information that was delivered face-to-face. Implicit in these findings are that expectant parents value familiarity with their instructor which

may have contributed to interactive learning and confidence in the choice to breastfeed (Kovala, Cramp, & Xia, 2016). Home visitors are in the perfect position to provide breastfeeding education to the client, therefore improving the clients comfort level in learning, knowledge, and success of breastfeeding.

The review of the afore mentioned literature studies highlights and supports the premise that breastfeeding education is a fundamental element necessary to form a strong mother baby dyad to sustain the length of breastfeeding for improved health outcomes. Sadly, today the rates in breastfeeding 79.2% are falling below the Healthy People 2020 national breastfeeding goals for newborns ever breastfed goal, 81.9% (Munn, Newman, Mueller, Phillips & Taylor, 2019). The World Health Organization and the United Children's Fund launched the baby friendly hospital initiative in order to promote a supportive educational environment to enhance initial breastfeeding experiences for mothers and infants (Munn, Newman, Mueller, Phillips, & Taylor, 2016). In step three of the program, prenatal education was evaluated as one of the most difficult steps to implement yet has the biggest effect on impacting of improving maternal breastfeeding decisions (Munn, Newman, Mueller, Phillips, & Taylor, 2016).

Health benefits throughout this literature depict benefits not only for the child, but also substantial benefits for the mother. Prenatal breastfeeding curriculum bridges the gap between education and overall improved health outcomes. Parry, Hopper, Schildcamp, and Labbok, (2018) emphasized that education through maternal child health programs must be provided with a quality comprehensive breastfeeding curriculum. The Ready, Set, baby curriculum according to the research and literature review herein has demonstrated quality in the curriculum, but the resulting health outcomes and increased lactation periods (Parry, Hopper, Schildcamp, &

Labbok, 2018). These findings suggest a path that leads to the improvement of prenatal breastfeeding education through enhancement of nurse lactation education.

CHAPTER 3

METHODS

Introduction

Home visiting nurses working with the maternal child health population of Gallatin County, provide a vast array of services for families not the least of which includes lactation support services. The goals of lactation services are to improve initiation and duration rates of breastfeeding by providing support and education to the mother. In October of 2019 a survey was sent out via survey monkey to all home visiting staff at Gallatin City-County Health Department. The survey assessed the a) confidence level of the visiting staff when teaching breastfeeding education and b) asked for a determination of perceived barriers to breastfeeding education (Micro assessment, 2019). Analysis of the survey responses established that more than half of home visiting staff did not feel confident when teaching lactation education. Common barriers to achieving confidence with their clients was attributed to the gap in the staff's knowledge level regarding lactation and that no one method was recognized as a standardized curriculum to be taught to the families (Micro Assessment, 2019). Based on the analysis of the micro assessment it was determined that a standardized lactation curriculum should be evaluated and selected that would equip the home visiting staff with the tools to provide breastfeeding education to the home clients.

Purpose

The purpose of this project is to improve breastfeeding duration and initiation rates by providing a standardized lactation education curriculum for the maternal child health population of Gallatin County home visiting families that satisfies the standards for lactation set forth by the World Health Organization (WHO) for lactation education (World Health Organization, 2020) . A second requirement of the project is to provide the home visiting staff with a standardized lactation education curriculum that improves their confidence level when they are providing education to mothers.

Project Development

The project development occurred over a six-month period. The needs assessment and initial appraisal of the project was conducted using survey monkey. The survey analysis revealed a knowledge gap regarding lactation education within the home visiting staff and prompted the concept of researching and adopting a standardized curriculum to use with the maternal child health population of Gallatin County.

As noted in the aforementioned literature review, the use of common core curriculum has been shown to increase not only the success of breastfeeding but a mother's satisfaction of breastfeeding; both have been shown to be linked to education (Awaliyah, Racjmawati, & Rahmah, 2019; Zeinab, Kohan, & Keshvari, 2017). Mothers who receive breastfeeding education and support have a positive correlation with the increased initiation and duration of breastfeeding (Cohen et. al., 2018). Furthermore, the project team was able to reinforce the significance of the contribution improved lactation education has to the mother and baby in order to meet the

requirements of Step Three of the Ten Steps set in place by the World Health Organization (WHO, 2020).

Based on the standardized curriculum researched, Ready, Set, Baby educational program (Carolina Global Breastfeeding Institute, 2020) was selected as a prenatal lactation curriculum because a) the content satisfies Step Three of the Ten Steps to successful breastfeeding set in place by the World Health Organization, b) the program fulfilled the standardized curriculum requirements for home visiting staff in Gallatin City-County Health Department, and c) the subject matter contained within the curriculum had a high reliability rate of improving initiation and duration rates, therefore improving overall health benefits of the mother and baby population (Carolina Global Breastfeeding Institute, 2020).

The authors Chaghart, Saffari, Ebadi, and Ameryoun (2017) recommended that the education provided to prenatal training staff must be practical and proportionate to the nurses' role and population, they serve. A train the trainer workshop was determined to be the most effective means for training staff and will be performed for Health Department staff which includes nurses, social workers, nutritional staff, and lactation education staff. All attending Gallatin City-County Health Department staff work with prenatal clients in their individual roles.

Target Sample/Setting

Target sample for this project are the home visiting nurses working with the local maternal child health population. The target sample has a range of experience working with prenatal clients that encompasses one to ten years in various settings. Target setting for this project lies in Bozeman, Montana at the Gallatin City-County Health Department. Gallatin county includes a population of 48,532 people. Within this population, home visiting staff

received a total of 618 referrals from January through September of 2019 for maternal child health services (micro assessment, 2019).

Instruments

As discussed by Areetey and Dykes (2018) evidence supports a link between adherence to the Ten Steps to Successful Breastfeeding and improved breastfeeding health outcomes such as improved rates of early initiation, exclusive breastfeeding, and total duration of breastfeeding (Areetey & Dykes, 2018). Ready, Set, Baby (Parry, Moss, & Sullivan, 2017) adheres to Step Three of the Ten Steps to successful breastfeeding by providing a lactation curriculum for prenatal mothers.

In July of 2019 Gallatin-City County Health Department started tracking initiation and duration rates of breastfeeding through data obtained within the electronic medical record. Quarter one (Table 4) tracked a total of ten mothers who initiated breastfeeding at a rate of 100%. Subsequent data at three months showed that 61.5 % of mothers continued to breastfeed (Micro-assessment, 2019).

Table 3. Gallatin City-County Health Department's Breastfeeding Rates Quarter One

Breastfeeding duration	Qtr 1	% still breastfeeding
0-2 weeks	10	starting pt
1 month	8	84.60%
2 month	7	72.30%
3 month	4	61.50%
4 month	3	55.40%
5 month	2	50.70%
6 month	7	47.70%
6-9 months	6	36.90%
9-12 months	5	27.70%
12-15 months	6	20%
15-18 months	4	10.70%
18-24 months	3	4.60%

(Micro-assessment, 2019)

Breastfeeding knowledge is an important factor associated with the choice to continue exclusive breastfeeding of the infant (Parry, Hopper, Shildcamp, and Labbok, 2018). Quarterly data tracking through the Health Departments EMR system will provide not only lactation data, but it can also provide important insights into potential gaps that need to be assessed and reevaluated for improvement.

To determine the improvement of the confidence level to teach lactation techniques for the home visiting staff, obtained through the use of the standardized curriculum Ready, Set, Baby (Carolina Global Breastfeeding Institute, 2020), a survey will be implemented and analyzed. The simple survey will consist of ten close-ended questions which will be rated on a five-point Likert scale. Four open-ended questions will be added to capture qualitative data based on the confidence level of the staff to replicate the education material during a home visit.

Proposed Analysis

Data from the Health Department's EMR system will be collected, analyzed, and reported on the initiation and duration rates of breastfeeding for all maternal child visitation within the county. This quantitative data gathered by the Health Departments data analyst will be structured and compared to the recommendations standards as defined by the WHO on lactation goals and benchmarks for healthy communities (World Health Organization, 2020).

Stemming from the data analysis, the quality improvement team will meet quarterly for one year and then yearly to discuss the data, progress, and any changes that might be made to enhance or benefit the project.

CNL Roles

The clinical nurse leader role encompassed several key roles during the development and design of this project. This author led and participated in a population health quality improvement team to a) assess the baseline of a patient population through a microsystem analysis, b.) search the literature and synthesize the current evidence-base standards, c) define and validate a gap within the county public healthcare system, and d) coordinate the work of the quality improvement team to make recommendations for a standardized approach to a segment of maternal and child care within the public health realm at the micro-system level.

As a clinician and a student clinical nurse leader, this author explored an existing database, evaluated aggregate care outcomes for the maternal child health population at Gallatin's Health Department focusing on specific nursing interventions based on a micro-

assessment in 2019. As an outcome's manager, the author revised lactation care standards based on an analysis of outcomes and evidence-based knowledge.

As an patient advocate, which is a fundamental role for the clinical nurse leader, this author discovered and applied evidence for practice and for changing practice by teaching the Ready, Set, Baby curriculum (Carolina Global Breastfeeding Institute, 2020) to home visiting staff in order to improve staff confidence levels when teaching lactation education to home visiting families. As a nurse leader this author was able to develop and implement a professional development workshop for other professional nursing staff and ancillary staff focusing on improving confidence levels when performing lactation education.

In the role of clinical nurse leader, as a system analyst this author was able to perform a micro-assessment for the GCCHD's home visiting team and from that discovered a need for a standardized lactation education curriculum for prenatal home visiting families. As a member of a profession the author spoke at a Board of Health (BOH) meeting in February of 2020 on the need for a standardized lactation education curriculum. The author was able to inform board members on Ready, Set, Baby curriculum and how it can be used to improve performance measures such as initiation and duration rates of breastfeeding.

Last, as an outcomes manager and nurse leader, revision of patient care and monitoring outcomes is key to success. The goal is to continuously adjust and monitor the success of this project in order to improve the maternal child health program at Gallatin City-County Health Department.

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